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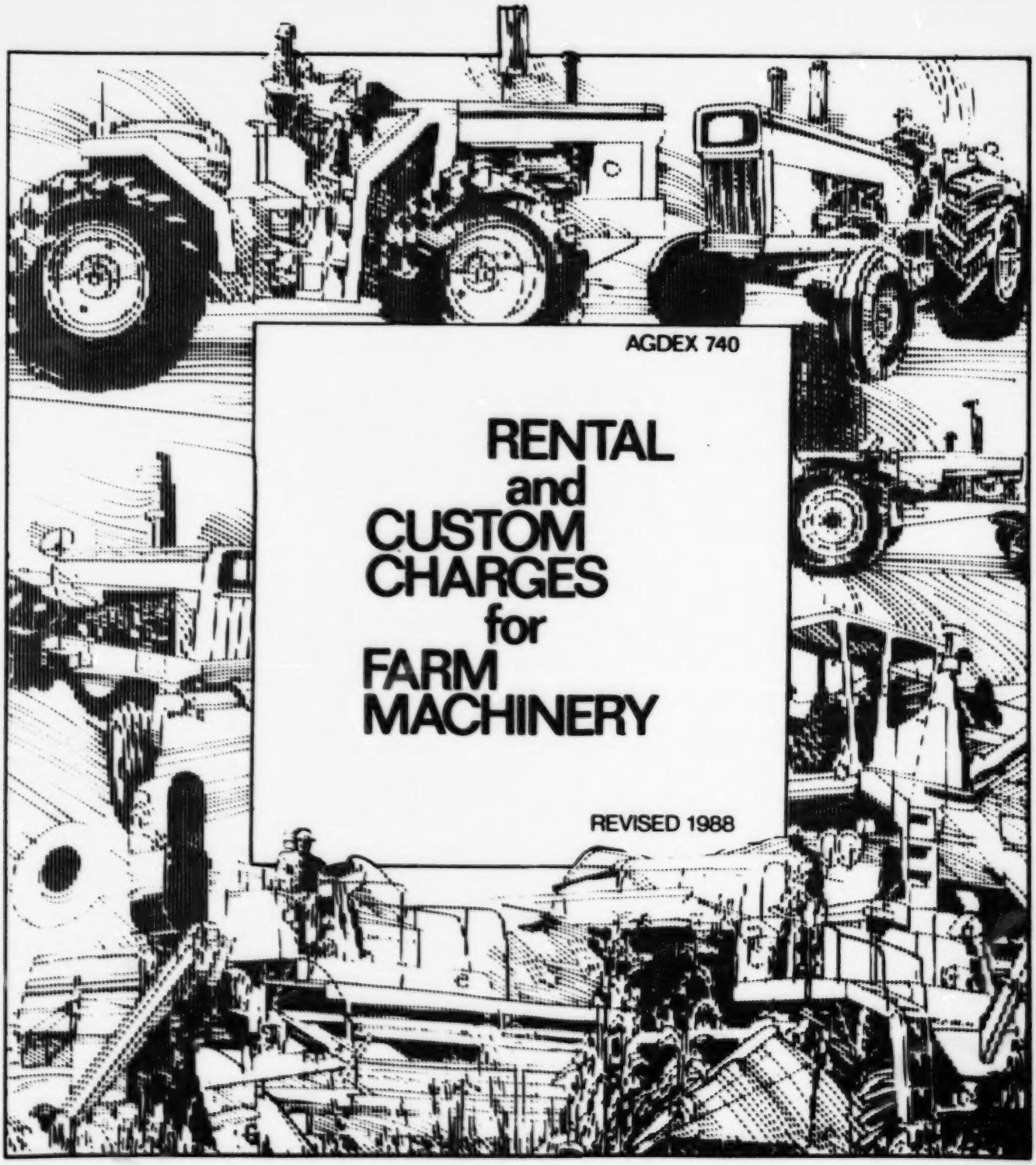

AGDEX 740

RENTAL and CUSTOM CHARGES for FARM MACHINERY

REVISED 1988

Rental and Custom Charges

This guide and work sheet has been developed to help farmers and custom operators calculate rental and custom charges for various farm operations.

The figures given here are for average conditions and may have to be altered for abnormal conditions such as stony land, excessive travel distances, etc.

THE CHARGES INCLUDE DEPRECIATION, INTEREST ON INVESTMENT (INTEREST AT 10% PER ANNUM), MAINTENANCE, REPAIRS AND A MARK-UP OF 20 PERCENT.

The full retail price was used to determine the charges. If a new machine is purchased for less than the full retail price, a corresponding reduction should be made in the rental charges.

The charges listed are based on the machines' effective width unless otherwise indicated. Fuel is not included in the charges except for SP combines.

TO USE THE GUIDE AND WORK SHEET PROCEED AS FOLLOWS:

1. Enter the size of machine in Column 3.

2. Calculate the hourly rental charge for the machine by multiplying the rental rate by the size of the machine (Col. 2 x Col. 3) and enter in Column 4.

   This is the hourly rental charge for the machine.

3. Calculate the tractor power required for the machine (Col. 3 x Col. 5) and enter in Column 6.

4. Calculate the tractor charge by multiplying the figure in Column 6 by the tractor rate and enter in Column 7. Tractor rental rates given on page 3.

5. Add the machine charge to the tractor charge (Col. 4 & Col. 7) and enter in Column 8.

   This is the total hourly rental charge for the tractor and machine.

6. If a custom rate is desired, enter the labour charge in Column 9 and add it to Column 8 to get the custom rate. Enter in Column 10.

7. Custom charges for self propelled combines are given on page 4.

8. If a custom or rental rate per hectare is desired for any of the machines, the hectares per hour must be calculated.

   hectares per hour (ha/h) =

   $$\frac{\text{width in metres} \times \text{speed in km/h}}{10}$$

   For tillage operations the above rate should be multiplied by about 80%, and for seeding and harvesting by about 65% to get actual field work rates.

NOTE: The rates shown are based on the assumed hours of use per year that are indicated. If the hours of use per year are 25 percent less than those indicated, the rates should be increased by 20 percent; if the hours of use per year are 25 percent greater, the rates should be reduced by five percent.

Tractor Rental Rates

Hourly Rental Rates (not including fuel)

Hours of use per year	2 wheel drive	4 wheel drive
300	$0.35/kW ($0.26/HP)	$0.37/kW ($0.28/HP)
500	0.24/kW ($0.18/HP)	0.255/kW ($0.19/HP)
800	0.195/kW ($0.145/HP)	0.21/kW ($0.155/HP)

Power Ratings of 4 Wheel Drive Tractors

MAKE	PTO POWER OR EQUIVALENT kW	HP
Allis Chalmers 7580	139	186
8550	189	254
Big Bud 525/50	357	479
Belarus 1500	126	169
7100	201	270
Case 2470 & 4490 & 4494	131	175
2670 & 4690 & 4694	164	220
2870 & 4890 & 4894	189	253
4994	256	344
Case International 9110	125	168
9130	142	190
9150	183	245
9170	224	300
9180	254	340
Ford FW20	133	178
FW30	180	241
FW40	192	258
FW60	242	324
International Harvester 3388	97	131
3588	112	150
3788	127	170
4386	149	200
4586	200	268
4786	225	302
John Deere 8440	134	180
8640	171	229
8450	139	187
8650	178	239
8850	227	304
Massey Ferguson 4800	134	179
4840	157	211
4880	203	273
4900	239	321

MAKE	PTO POWER OR EQUIVALENT kW	HP
Steiger Bearcat IV CM225	158	212
IV KM255	154	214
Cougar IV CM250	179	240
CS280	196	263
Cougar CM280	202	271
CR1225	156	209
CR1280	193	258
Panther IV CM325	229	306
CP1325	223	299
KP1325	225	301
KP1360	243	326
Panther IV CP1360	249	334
KP1400	278	372
CP1400	277	371
SM325	230	308
KM325	234	314
CM360	267	358
Versatile 150	45	60
256	63	84
276	75	100
555	136	182
700	134	180
750	142	191
800	152	204
835	149	200
836	144	193
825 & 855	158	214
856	156	209
850 & 875	188	253
876	193	259
895	213	286
900	190	255
935	209	280
936	216	289
950	224	300
976	234	313
1150	331	444
1156	305	409
White 4-150 & 4-175	113	152
4-180 & 4-210	136	182
4-225	146	196
4-270	175	235

NOTE: Manufacturer's estimates or calculated values (drawbar power on concrete = 0.88 x PTO power) are given for some tractors.

Combine Rental and Custom Rates

(based on 175 hours of use per year)

PULL TYPE COMBINES (Not including tractor or operator)	Charge/hour	Min. tractor PTO power required
Case IH 1682	$100	100 kW
John Deere 7721	93	100 kW
Massey Ferguson 852	71	85 kW
Versatile 2000	88	100 kW
Cereal Implements 9600	68	75 kW
9850	109	115 kW

SELF PROPELLED COMBINES (Including operator and fuel)	Charge/hour
Gleaner Baldwin F3	$ 123
M3	147
L3	174
R5	199
R6	220
R7	255
Case IH 1640	158
1660	182
1680	204
John Deere 6620 Titan II	149
7720 Titan II	171
8820 Titan II	205
Massey Ferguson 550	109
850	147
860	161
855	157
865	178
New Holland TR86	178
TR96	205

Additional Charges

Direct cut headers		Cornheads	
6 m	4.00	4 row	$17.50/h
7.5 m	6.50	6 row	30.00/h
9 m	10.00	8 row	43.00/h

For combines not listed above the rates are as follows:
Pull type $9.00/m²* (not including tractor, operator or fuel)
Self Propelled $14.25/m²* (not including operator or fuel)

*Total combine separating in square metres - see page 5.

Example: White 8900 combine with pickup
8.2 m² separating area
8.2 x 14.25 = $117/h plus operator and fuel

For rotary combines not listed above the rate is $1.20 per $1000 of new cost plus operator and fuel.

Combine Separating Areas (m^2)

(I & T RED BOOK)

CASE	460 & 660	5.4
	960	5.7
	1060 & 1160	6.9
	1660	8.6
CO-OP IMPLEMENTS	950 & 960	7.2
CEREAL IMPLEMENTS	9600	7.1
	9850	11.5
FORD	620	6.1
	622	6.4
	630	7.5
	640	8.9
	642	9.6
GLEANER-BALDWIN	K2	5.1
(ALLIS CHALMERS)	F2 & F3	6.9
	G	8.1
	M2	8.6
	M3	9.0
	L2	10.2
	L3	10.7
INTERNATIONAL	615	4.1
HARVESTER	402, 403 & 715	5.5
	815	6.3
	914 & 915	7.9
	503	7.3
JOHN DEERE	55 & 65	4.8
	95 & 96	6.4
	105 & 106	8.0
	430	5.9
	630	7.9
	730	9.9
	3300	4.4
JOHN DEERE	4400 & 4420	5.8
	6601 & 6600	7.4
	6620	8.0
	6620 Titan II	8.3
	7701 & 7700	9.3
	7721 & 7720	10.0
	7720 Titan II	10.3
	8820	12.0
	8820 Titan II	12.4
MASSEY FERGUSON	300	3.7
	405 & 410	6.9
	510	7.2
	550	7.4
	750	8.9
	751	8.9
	760	10.6
	850	9.9
	851	8.9
	852	9.0
	860	11.7
NEW HOLLAND	975	5.7
	985	7.1
	995	8.8
	1400	7.6
	1500	9.5
VERSATILE	42 & 420	6.0
	5000	6.9
WHITE	535	5.6
	5542	5.7
	545	5.9
	7300	4.8
	7600, 8600, 8650 & 8700	7.1
	5555, 7800, 8800 & 8900	8.2
	8920	8.5

MACHINE WIDTH CONVERSIONS	
feet	metres
5	1.5
6	1.8
7	2.1
8	2.4
9	2.7
10	3.0
11	3.4
12	3.7
13	4.0
14	4.3
15	4.5
16	4.9
17	5.2
18	5.5
19	5.8
20	6.1
21	6.4
22	6.7
23	7.0
24	7.3
25	7.6
26	7.9
27	8.2
28	8.5
29	8.8
30	9.1
31	9.4
32	9.8
33	10.1
34	10.4
35	10.7
36	11.0
37	11.3
38	11.6
39	11.9
40	12.2
42	12.8
44	13.4
46	14.0
48	14.6
50	15.2
55	16.8
60	18.3
65	19.8
70	21.3
75	22.9
80	24.4

1		2	3	
MACHINE	ASSUMED HOURS OF USE PER YEAR	HOURLY RENTAL RATE	MACHINE SIZE	MACI RENTAL PER COL (2
Air Seeders w/harrows	150	$6.50/m		
Baler (355 x 455 mm)	125			$19.00
(with bale thrower)				$25.50
Baler (round) (1.2 m dia)	100			$27.75
(1.5 m dia)				$29.75
(1.8 m dia)				$35.50
Bale Wagon (SP) (fuel not incl.)	250		160 Bales	$85
(PTO)			104 Bales	$26
			83 Bales	$15
Bale Mover (round bales)	125		6 Bale	$12
			8 Bale	$15.
			12 Bale	$20
Bean puller	50	$3.60 per $1000*		
Cultivator (field) Rigid	200	$1.10/m		
Wing		$1.50/m		
Cultivator (heavy duty) Rigid	200	$1.60/m		
Wing		$2.05/m		
Cultivator (wide blade)	200	$2.25/m		
Cultivator (row crop)	125	$1.45 per $1000*		
Discer/Seeder	150	$3.90/m		
Drill (double disc press)	125	$7.25/m		
(hoe press)		$6.95/m		
Rod Weeder Hoe		$6.30/m		
Zero till		$11.00/m		
Feed Mix Mills	175	$1.25 per $1000*		
Forage Blower	100			$9.
Forage Box & Wagon (high dump or self unloading)	100		6 t	$20.

* Rate based on $1000 of new cost.

EXAMPLE:

Discer/Seeder	150	$3.90/m	9 m	$35. (9 x 3

4	5		7	8	9	10
MACHINE RENTAL CHARGE PER HOUR COL (2 x 3)	POWER kW/m (HP/ft)	POWER REQUIRED kW (HP) COL. (3x5)	TRACTOR RENTAL CHARGE PER HOUR COL. 6 x TRACTOR RATE	TOTAL RENTAL CHARGE PER HR COL. (4+7)	LABOUR CHARGE PER HOUR	TOTAL CUSTOM CHARGE PER HOUR COL. (8+9)
	12-17 (5-7)					
$19.00 Plus $25.50 Twine		20(25-30) 25(30-35)				
$27.75 $29.75 Plus $35.50 Twine		30 (40) 40 (55) 50 (70)				
$85.00 $26.50 $15.75		40-45(50-60) 35-40(45-50)		$85.00 Plus Fuel		
$12.00 $15.00 $20.75						
	loam 6-10(2.5-4) clay 8-12(3.5-5)					
	loam 9-14(3.5-6) clay 12-18(5-7.5)					
	8 - 12 (3.5-5)					
	hoe drills 10-13 (4-5.5) double disc 5-7 (2-3) zero till 10 (4)					
$9.00		40-45(50-60)				
$20.50						
$35.10 (9 x 3.90)	8 - 12	90 kW (9 x 10)	$21.60 Plus Fuel (90 x 0.24)	$56.70 Plus Fuel	$8.00	$64.70 Plus Fuel

MACHINE WIDTH CONVERSIONS		1		2	3	4
feet	metres	MACHINE	ASSUMED HOURS OF USE PER YEAR	HOURLY RENTAL RATE	MACHINE SIZE	MACHINE RENTAL CHARGE PER HOUR COL. (2 x 3)
5	1.5	Forage Harvester (w/pick up)	100		Small	$30.00
		(w/2 row header)				$33.75
6	1.8	(w/pick up)			Medium	$40.25
7	2.1					
8	2.4	(w/2 row header)				$44.00
9	2.7	(w/pick up)			Large	$47.75
10	3.0					
11	3.4	(w/2 row header)				$51.50
12	3.7					
13	4.0					
14	4.3	Front End Loader	150	$1.15 per $1000*		
15	4.5					
16	4.9	Grain Auger 200 mm dia	150	$0.27/m		
17	5.2	250 mm dia		$0.35/m		
18	5.5					
19	5.8					
20	6.1	Grain Dryer	150	$1.15 per $1000*		
21	6.4					
22	6.7					
23	7.0	Harrows w/Hyd. Drawbar(diamond)	175	$0.50/m		
24	7.3	(springtine)		$0.65/m		
25	7.6					
26	7.9					
27	8.2	Harrow Packers		$1.55/m		
28	8.5					
29	8.8					
30	9.1	Hay Stackers	125	$1.45 per $1000*		
31	9.4					
32	9.8					
33	10.1	Land Scraper	125	$1.30 per $1000*		
34	10.4					
35	10.7					
36	11.0	Manure Spreader (liquid or dry)	150	$1.20 per $1000*		
37	11.3					
38	11.6					
39	11.9	Mower - Conditioner	100	$9.25/m		
40	12.2					
42	12.8					
44	13.4	Mower	75	$4.00/m		
46	14.0					
48	14.6					
50	15.2	Packer w/Hitch	125	$0.60/m		
55	16.8					
60	18.3					
65	19.8	Planters (row crop)	75		4 row	$32.50
70	21.3				6 row	$47.50
75	22.9				8 row	$61.50
80	24.4				12 row	$93.00
			100		4 row	$25.50
					6 row	$37.50
					8 row	$48.50
					12 row	$73.00
		Plow - Semi Mounted	125	$5.85/m		
		Trailing		$6.75/m		
		Post Hole Auger	50			$3.00
		Post Driver				$4.50

* Rate based on $1000 of new cost.
Example:
Manure Spreader (new cost $5000) $1.20/$1000 5 $6.00 (5 x $1.20)

5	6	7	8	9	10
POWER kW/m (HP/ft)	POWER REQUIRED kW (HP) COL(3x5)	TRACTOR RENTAL CHARGE PER HOUR COL 6 x TRACTOR RATE	TOTAL RENTAL CHARGE PER HR COL. (4+7)	LABOUR CHARGE PER HOUR	TOTAL CUSTOM CHARGE PER HOUR COL. (8+9)
	50-75(70-100) 75-110(100-150) 110-150(150-200)				
1.2-3(0.5-1.2)					
2.5-4(1-1.5)					
10 (4)					
3.5-5(1.5-2)					
1.2(0.5)					
20-30(8-12)					
	40 kW	$9.60 Plus Fuel (40 x 0.24)	$15.60 Plus Fuel	$6.40	$22 Plus Fuel

MACHINE WIDTH CONVERSIONS	
feet	metres
5	1.5
6	1.8
7	2.1
8	2.4
9	2.7
10	3.0
11	3.4
12	3.7
13	4.0
14	4.3
15	4.5
16	4.9
17	5.2
18	5.5
19	5.8
20	6.1
21	6.4
22	6.6
23	7.0
24	7.3
25	7.6
26	7.9
27	8.2
28	8.5
29	8.8
30	9.1
31	9.4
32	9.8
33	10.1
34	10.4
35	10.7
36	11.0
37	11.3
38	11.6
39	11.9
40	12.2
42	12.8
44	13.4
46	14.0
48	14.6
50	15.2
55	16.8
60	18.3
65	19.8
70	21.3
75	22.9
80	24.4

1 MACHINE	ASSUMED HOURS OF USE PER YEAR	2 HOURLY RENTAL RATE	3 MACHINE SIZE	4 MACHINE RENTAL CHARGE PER HOUR COL (2 x 3)
Potato Harvester	225		2 row	belted chain $93.50 hooked chain $88.50
Potato Windrower	225		2 row	belted chain $37.00 hooked chain $34.00
Rake (wheel) (parallel bar)	75	$2.65/m $3.80/m		
Rock Picker (fork type) (reel type)	125	$5.25/m $8.00/m		
Rock Windrower	125	$2.65/m		
Rod Weeder	100	$1.25/m		
Sprayer Sprayer attachment for harrowbar	50	$1.40/m $16.00		
Stackmover	125		3 t 6 t 9 t	$8.50 $14.25 $20.00
Sugar Beet Harvester	175		4 row 6 row	$43.50 $68.00
Sugar Beet Thinner	75	$2.40 per $1000*		
Sugar Beet Topper	175		4 row 6 row	$19.50 $22.50
Tandem and Offset Discs	150	$1.15 per $1000*		
Trucks (not including fuel)	16 days/mo	$8.00/day per tonne plus 3.5¢/km per t	Net payload in tonnes	
Windrower (PTO)	125	$2.75/m		
Windrower (SP) (SP) (with conditioner) (not including fuel)	150	$7.05/m $9.95/m		

*Rate based on $1000 of new cost.

Example:

Truck (8 tonne net payload)		$8.00/day/t plus 3.5¢/km/t	8 t (8000 kg)	8x$8.00=$64/day Plus 8x3.5=28¢/km

5	6	7	8	9	10
POWER kW/m (HP/ft)	POWER REQUIRED kW (HP) COL (3x5)	TRACTOR RENTAL CHARGE PER HOUR COL 6 x TRACTOR RATE	TOTAL RENTAL CHARGE PER HR COL. (4+7)	LABOUR CHARGE PER HOUR	TOTAL CUSTOM CHARGE PER HOUR COL. (8+9)
	55-75(75-100)				
	45-55(60-75)				
3.5-5(1.5-2)					
5-8 (2-3.5)					
0.7-1.2(0.3-0.5)	10-15(7.5-11)				
	55-75(75-100) 80-110(110-150)				
10-15 (4-6)					
3.5-6(1.5-2.5)					

$64/day plus
28¢/km
plus fuel

Conversion Factors

SYMBOLS

LENGTH	AREA	WEIGHT	VOLUME
mm - millimetre cm - centimetre m - metre km - kilometre	m^2 - square metre ha - hectare	mg - milligram g - gram kg - kilogram t - tonne	mL - millilitre L - litre m^3 - cubic metre
POWER	PRESSURE	TEMPERATURE	
kW - kilowatt	kPa - kilopascal	°C - degree Celsius	

RELATIONSHIPS

LENGTH	AREA	WEIGHT	VOLUME
10 mm = 1 cm 100 cm = 1 m 1000 m = 1 km	10,000 m^2 = 1 ha	1000 mg = 1 g 1000 g = 1 kg 1000 kg = 1 t	1000 mL = 1 L 1000 L = 1 m^3

****

LENGTH	AREA	WEIGHT
1 in = 2.54 cm 1 ft = 0.3048 m 1 yd = 0.9144 m 1 rod = 5.029 m 1 mile = 1.609 km	1 acre = 0.4047 ha 1 sq in = 6.452 cm^2 1 sq ft = 0.093 m^2 1 sq yd = 0.836 m^2 1 sq mile = 2.59 km^2	1 oz = 28.35 g 1 lb = 0.4536 kg 1 ton = 0.907 t
VOLUME	PROPORTION	TEMPERATURE
1 fl oz = 28.41 mL 1 pint = 0.568 L 1 quart = 1.137 L 1 gal = 4.546 L 1 U.S. gal = 3.785 L 1 cu in = 16.387 cm^3 1 cu ft = 0.028 m^3 1 cu yd = 0.765 m^3	1 fl oz/acre = 70.21 mL/ha 1 lb/acre = 1.121 kg/ha 1 pint/acre = 1.40 L/ha 1 qt/acre = 2.81 L/ha 1 gal/acre = 11.23 L/ha 1 lb/in^2 (psi) = 6.895 kPa	°C = 5/9 (°F - 32) POWER 1 HP = 0.7457 kW 1 HP/ft = 2.45 kW/m